**Homework 62** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Special Right Triangles 45-45-90** Period:\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Failure to show all work and write in complete sentences will result in LaSalle.**

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| 1. Why is the ratio of the sides in a 45 – 45 – 90 triangle 1:1:? Draw a picture to support your answer. | |
| 1. Find the value of each variable. Write answers in the simplest radical form. | 1. Find the value of each variable. Write answers in the simplest radical form. |
| 4. Use the figure at the right to fill in the table below. |  |
| 5. You are replacing the roof on the house shown, and you want to know the total area of the roof. The roof has a 1-1 pitch on both sides, which means that it slopes upward at a rate of 1 vertical unit for each 1 horizontal unit. | a. Find the values of *x* and *y* in the diagram.  b. Find the total area of the roof to the nearest square foot. |